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09/720,488	03/05/2001	Akiho Ota	108259	2376

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EXAMINER

EGAN, BRIAN P

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 08/05/2003

17

Please find below and/or attached an Office communication concerning this application or proceeding.

A 912

Advisory Action

Application No.

09/720,488

Applicant(s)

OTA ET AL.

Examiner

Brian P. Egan

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 21 July 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☒ A Notice of Appeal was filed on 21 July 2003. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: None

Claim(s) objected to: None

Claim(s) rejected: 1 and 3-9

Claim(s) withdrawn from consideration: 2, 10 and 11

8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
10. ☐ Other: _____

Continuation of 3. Applicant's reply has overcome the following rejection(s): the rejection of claims 1, 3-4, and 8 under 35 U.S.C. 102(b) over JP 07-266517.

ADVISORY ACTION

1. Applicant's arguments filed July 21, 2003 have been fully considered but they are not persuasive.
2. The Applicant's amendment, paper no. 16, has been entered but it fails to place the application in condition for allowance.
3. First, the 35 U.S.C. 102(b) rejection over JP 07-266517 (assigned to Toppan Printing Co., Ltd.) has been overcome pursuant to the Applicant's amendment (paper no. 16). The Examiner maintains, however, that claims 1 and 3-9 are rejectionable under 35 U.S.C. 103(a) as being unpatentable over JP '517 in view of Taniguchi et al. (#4,778,842) and Hahn (#4,496,408).

As noted in the previous office action:

JP '517 teaches a laminated plastic molded body being a three-layered or five-layered (Configurations of A/B/A, A/C/B/C/A, A/B/D/B/A, A/E/B/E/A, etc.; see pages 5-6) laminated plastic molded body in which a resin layer A and a resin layer B are laminated alternately (see pages 5-6), and the resin layer A is a polyethylene terephthalate resin layer (p. 10, lines 37-39) and the resin layer B interposed between the resin layer A is a polyolefin resin layer having a cyclic olefin component ("annular olefin"; p.10, lines 39-40). The total weight of the polyolefin resin layer having the cyclic olefin component (resin layer B) is 5-60% by weight (p. 1, lines 40-42). The plastic molded body is a plastic container comprising a hollow biaxially drawn blow molded body (p.3, lines 26-29; p.11, line 9).

JP '517 fails to teach the composition of the polyethylene terephthalate layer. JP '517 is also silent as to whether the laminated plastic molded body is cylindrical.

Taniguchi et al., however, teach a polyester resin composition that is used in plastics (Col. 1, lines 16-17) wherein the resin contains 40-80 parts by weight of polyethylene terephthalate type polyester, 20-60 parts by weight of a poly(1,4-butylene terephthalate) type polyester, and a metal salt of a copolymer (see Abstract). Taniguchi et al. teach the aforementioned composition for the purpose of providing a polyester resin composition exhibiting excellent impact resistance and moldability (see Abstract). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to have used a polyester resin with 40-80 parts by weight of polyethylene terephthalate type polyester, 20-60 parts by weight of a poly(1,4-butylene terephthalate) type polyester, and a metal salt of a copolymer for the purpose of providing a polyester resin composition exhibiting excellent impact resistance and moldability for a plastic container as taught by Taniguchi et al.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified JP '517 by using a polyester resin composition as taught by Taniguchi et al. in order to provide a polyester resin composition exhibiting excellent impact resistance and moldability for a plastic container.

Although JP '517 is silent as to whether the laminated plastic molded body is cylindrical, it is notoriously well known in the art that molded containers are commonly

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molded into cylindrical containers. Furthermore, Hahn teaches a method for producing biaxially oriented hollow containers (see Abstract; Figs. 8-9). Hahn teaches that the method can be used for polyesters including polyethylene terephthalate as well as polyolefins (Col. 4, line 55 to Col. 5, line 2). Hahn biaxially orients the molded layers of the hollow article for the purpose of enhancing the strength properties of the container (Col. 1, lines 13-25). The final product as taught by Hahn is a cylindrical molded container (Figs. 8-9). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to have biaxially oriented the plastic layers of a container wall and molded the plastic layers into a cylindrical container for the purpose of enhancing the strength properties of the container as taught by Hahn.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified JP '517 by biaxially orienting the layers of the laminated plastic body of the container and molding the layers into a cylindrical container as taught by Hahn for the purpose of enhancing the strength properties of the container.

The Applicant's primary contention with regards to the above analysis is that JP '517 fails to teach the claimed compositional ratio of A to B and that the cited secondary references fail to alleviate this deficiency. The Examiner respectfully disagrees. First, the Applicant does not claim a ratio of A to B. As claimed, the limitation only reads that the resin layer A comprises 55-95% weight poly(ethylene terephthalate) resin and that the resin layer B comprises 5-45% weight polyolefin/cyclic polyolefin. The Examiner notes that if the Applicant intends to claim these percent weight compositions on the basis of the total weight of the molded body, the claim language should be clarified. Otherwise, prior art need only anticipate or fairly suggest the weight % of each individual layer to render the Applicant's claimed invention obvious. Second, JP '517 explicitly teaches that the polyolefin layer comprises 5-60% cyclic polyolefin which is interpreted to mean that 5-60% of the polyolefin layer is cyclic polyolefin and thus 40-95% of the polyolefin layer is non-cyclic polyolefin – either range anticipating the Applicant's claimed weight percentage. Third, Tamiguchi et al. teach a polyester resin composition comprising 40-80 parts by weight of PET – the polyester composition of Tamiguchi et al. used for the purpose of providing a polyester resin composition exhibiting excellent impact resistance and moldability.

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Therefore, it would have been obvious to one of ordinary skill in the art to modify the PET weight % in layer A of JP '517 such that the PET comprises 40-80 % weight of the layer in order to provide a polyester substrate that exhibits impact resistance and moldability. Finally, even if the Applicant's amend the claims to read that the weight percentages are based on the total weight of the plastic molded body, it would have been obvious to modify the weight percentages of each of the individual layers within the ranges disclosed above such that layer A comprises 55 to 95% weight of the end product and layer B comprises 5 to 45 % weight of the end product, depending on the desired end product, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Second, the Examiner maintains the 35 U.S.C. 103(a) rejection of claims 1 and 3-9 as being unpatentable over JP-06-285960 (assigned to Yamato Esuron K.K.) in view of JP-07-080919 (assigned to Toppan Printing Co., Ltd.), Taniguchi et al. (#4,778,842), and Hahn (#4,496,408).

As stated in the previous office action:

JP '960 teaches a laminated plastic molded body being a three-layered laminated plastic molded body (p.1, lines 11-12) in which a resin layer A and a resin layer B are laminated alternately, and the resin layer A is a polyethylene terephthalate resin layer ("thermoplastic polyester layer, PET"; p. 1, lines 36-37), and the resin layer B interposed between the resin layers A is a polyolefin resin (p.4, lines 15-19). The laminated plastic molded body is a hollow blow molded body wherein the hollow blow molded body is a cylindrical body further constituting a trunk portion of a tube container (p. 1, lines 24-26; p. 2, lines 17-20 (with respect to the limitation of being "hollow"); p.11, Drawing 1).

JP '960 fails to teach that the multi-layer body is biaxially drawn and also fails to teach the use of a cyclic polyolefin and the percent compositions of resin layers A and B.

JP '919 teaches a blow-molded container using 5-60 mol% cyclic polyolefin. JP '919 uses cyclic olefin for the purpose of providing the article with excellent transparency, steam barrier nature, thermal resistance, and rigidity (p. 6, lines 15-16). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to have used a cyclic polyolefin in making a container for the purpose of providing an article with excellent transparency, steam barrier nature, thermal resistance, and rigidity as taught by JP '919.

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Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified JP '960 by using a cyclic polyolefin in the range of 5-60 mol% for the central polyolefin layer of the multilayered container as taught by JP '919 in order to attain excellent transparency, steam barrier nature, thermal resistance, and rigidity.

Taniguchi et al. teach a polyester resin composition that is used in plastics (Col. 1, lines 16-17) wherein the resin contains 40-80 parts by weight of polyethylene terephthalate type polyester, 20-60 parts by weight of a poly(1,4-butylene terephthalate) type polyester, and a metal salt of a copolymer (see Abstract). Taniguchi et al. teach the aforementioned composition for the purpose of providing a polyester resin composition exhibiting excellent impact resistance and moldability (see Abstract). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to have used a polyester resin with 40-80 parts by weight of polyethylene terephthalate type polyester, 20-60 parts by weight of a poly(1,4-butylene terephthalate) type polyester, and a metal salt of a copolymer for the purpose of providing a polyester resin composition exhibiting excellent impact resistance and moldability for a plastic container as taught by Taniguchi et al.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified JP '960 by using a polyester resin composition as taught by Taniguchi et al. in order to provide a polyester resin composition exhibiting excellent impact resistance and moldability for a plastic container.

Finally, Hahn teaches a method for producing biaxially oriented hollow containers (see Abstract; Figs. 8-9). Hahn teaches that the method can be used for polyesters including polyethylene terephthalate as well as polyolefins (Col. 4, line 55 to Col. 5, line 2). Hahn biaxially orients the molded layers of the hollow article for the purpose of enhancing the strength properties of the container (Col. 1, lines 13-25). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to have biaxially oriented the plastic layers of a container wall for the purpose of enhancing the strength properties of the container as taught by Hahn.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified JP '960 by biaxially orienting the layers of the laminated plastic body of the container as taught by Hahn for the purpose of enhancing the strength properties of the container.

Again, the Applicant's primary contention with the above rejection is that JP '960 is silent with regards to the weight ratio of layers A and B. The Examiner respectfully disagrees. First, the Applicant does not claim a ratio of A to B. As claimed, the limitation only reads that the resin layer A comprises 55-95% weight poly(ethylene terephthalate) resin and that the resin layer B comprises 5-45% weight polyolefin and/or cyclic polyolefin. The Examiner notes that if the Applicant intends to claim these percent weight compositions on the basis of the total weight of the molded body, the claim language should be clarified. Otherwise, prior art need only anticipate or fairly suggest the weight % of each individual layer to render the Applicant's

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claimed invention obvious. Therefore, the Examiner maintains the rejection since it would have been obvious to provide JP '916 with a layer A comprising 40-80 % weight of PET as taught by Taniguchi and to provide JP '916 with a layer B comprising 5 to 45% cyclic polyolefin for the reasons stated above. Also, even if the Applicant amends the claims such that the claimed percent weights are in regards to the total weight of the plastic molded body, it would have been obvious to modify the weight percentages of each of the individual layers within the ranges disclosed above such that layer A comprises 55 to 95% weight of the end product and layer B comprises 5 to 45 % weight of the end product, depending on the desired end product, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

With regards to the Applicant's contention that the weight ratio of layers A and B provides unexpected results, the weight ratio of the layers is not being claimed as noted above, and thus this contention is irrelevant. It is the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064.

The Applicant's further contend that the teachings of JP 960 fail to explicitly anticipate film laminate structures of PET-PO-PET and PET-PO-PET-PO-PET and instead allows for a wide range of combinations including EVA and MX nylon. The mere fact that JP 960 anticipates a wide range of combinations, however, is irrelevant. JP 960 states that an internal layer of PO is selected with outer layers selected from PET, EVA, and MX nylon. Therefore, any combination of PO with the aforementioned outer layers is anticipated by JP 960 – including PET-PO-PET.

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Finally, the Applicant also contends that proper motivation to modify JP 960 in view of JP 919 (the use of cyclic olefin) was not provided. Given that both prior art references are directed at rigid, impact resistant film layers for containers, the Examiner maintains that motivation exists as noted in the previous office action, i.e., it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified JP '960 by using a cyclic polyolefin in the range of 5-60 mol% for the central polyolefin layer of the multilayered container as taught by JP 919 in order to attain excellent transparency, steam barrier nature, thermal resistance, and rigidity. Also note that the test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 USPQ 209 (CCPA 1971) – thus, regardless of whether JP 919 is directed towards a single-layered material, the prior art teachings of the two references are to be taken as a whole, and taken as a whole, it would have been obvious to modify JP 960 in view of JP 919 for the previously mentioned reasons.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Egan whose telephone number is 703-305-3144. The examiner can normally be reached on M-F, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 703-308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

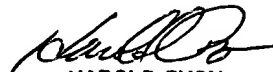
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



BPE

August 3, 2003



HAROLD PYON
SUPERVISORY PATENT EXAMINER

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8/4/03